Notice of Allowability	Application No.	Applicant(s)	
	09/992,558	KRISHNA ET AL.	
	Examiner	Art Unit	
	J. Derek Rutten	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Appeal Brief filed 11/2/2005*.

2. ☒ The allowed claim(s) is/are *1-3, 5-18, 20-31, 33-47, 49-65, and 67-79 (renumbered 1-74)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other *See Continuation Sheet*.

TUAN DAM
SUPERVISORY PATENT EXAMINER

Continuation of Attachment(s) 9. Other: Examiner-Initiated Interview Summary (PTOL-413B).

DETAILED ACTION

1. This action is in response to Applicant's Appeal Brief filed 11/2/2005, responding to the 5/2/2005 Office action which detailed the rejection of claims 1-79. Applicant's arguments (see pages 7-24), regarding the prior art of the last Office action, are persuasive and therefore, the finality of that action is withdrawn. Claims 1-79 remain pending and have been fully considered by the examiner.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Margaret Anderson, Reg. No. 44,182 on 6/23/06, to put the claims in condition for allowance as appealed for by Applicant. The application has been amended as follows:

IN THE CLAIMS:

Please amend claims 1, 5, 16, 20, 29, 33, 44, 49, 59, 62, 67, and 77, and cancel claims 4, 19, 32, 48, and 66 as follows:

Claim 1 (Currently Amended): A method for determining instruction boundaries of at least one method body within a computer code loaded into a memory of a smart card comprising:

a) examining in a sequential manner each instruction of the at least one method body starting with a first instruction of the at least one method body for an instruction selected from a group consisting of a forward jump instruction and a valid ending instruction;

b) maintaining a Farthest Logical Return (FLR) Pointer corresponding to the instruction of the at least one method body for which the farthest forward jump instruction or the farthest valid ending instruction is detected; ~~and~~

c) terminating the examining for a forward jump or a valid ending instruction when the instruction under examination is beyond the instruction corresponding to the FLR Pointer; and

d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the FLR Pointer.

Claim 4 (Canceled)

Claim 5 (Currently Amended): In claim 5, after "method of claim", please replace "4" with --1--.

Claim 16 (Currently Amended): A computer-readable medium tangibly having a program of machine-readable instructions for causing a processor to perform a method for determining

instruction boundaries of at least one method body within a computer code loaded into a memory of a smart card, the method comprising:

a) examining in a sequential manner each instruction of the at least one method body starting with a first instruction of the at least one method body for an instruction selected from a group consisting of a forward jump instruction and a valid ending instruction;

b) maintaining a Farthest Logical Return (FLR) Pointer corresponding to the instruction of the at least one method body for which the farthest forward jump instruction or the farthest valid ending instruction is detected; ~~and~~

c) terminating the examining for a forward jump or a valid ending instruction when the instruction under examination is beyond the instruction corresponding to the FLR Pointer; and

d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the FLR Pointer.

Claim 19 (Canceled)

Claim 20 (Currently Amended): In claim 20, after "medium of claim", please replace "19" with --16--.

Claim 29 (Currently Amended): A smart card configured to receive computer code having at least one method body within the computer code comprising:

a memory;

a processor connected to the memory; and

an installer module having logic operable to cause the processor to receive the computer code into the memory; and further having logic operable to cause the processor to determine instruction boundaries within the computer code by a) examining in a sequential manner each instruction of the at least one method body starting with a first instruction of the at least one method body for an instruction selected from a group consisting of a forward jump instruction and a valid ending instruction; b) maintaining a Farthest Logical Return (FLR) Pointer corresponding to the instruction of the at least one method body for which the farthest forward jump instruction or the farthest valid ending instruction is detected; ~~and~~ c) terminating the examining for a forward jump or a valid ending instruction when the instruction under examination is beyond the instruction corresponding to the FLR Pointer; and d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the FLR Pointer.

Claim 32 (Canceled)

Claim 33 (Currently Amended): In claim 33, after "card of claim", please replace "32" with --29--.

Claim 44 (Currently Amended): A method for determining instruction boundaries of at least one method body within a computer code loaded into a memory of a smart card comprising:

a) examining the instructions of the at least one method body to determine a farthest logical return within the at least one method body;

b) establishing the instruction boundary at the instruction located at the farthest logical return; ~~and~~

c) terminating the examination of the instructions when the instruction under examination is beyond the farthest logical return; and

d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the farthest logical return.

Claim 48 (Canceled)

Claim 49 (Currently Amended): In claim 49, after "medium of claim", please replace "48" with --44--.

Claim 59 (Currently Amended): A smart card configured to receive computer code having at least one method body within the computer code comprising:

a memory;

a processor connected to the memory; and

an installer module having logic operable to cause the processor to receive the computer code into the memory; and further having logic operable to cause the processor to determine instruction boundaries within the computer code by a) examining the instructions of the at least one method body to determine a farthest logical return within the at least one method body; b) establishing the instruction boundary at the instruction located at the farthest logical return; ~~and~~ c) terminating the examination of the instructions when the instruction under examination is beyond the farthest logical return; and d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the farthest logical return.

Claim 62 (Currently Amended): A method for determining instruction boundaries of at least one method body within a computer code loaded into a memory of a smart card comprising:

(a) examining in a sequential manner each instruction of the at least one method body starting with a first instruction of the at least one method body for an instruction that establishes a logical return;

(b) maintaining a Farthest Logical Return (FLR) Pointer to continuously store the farthest logical return found in the examining step (a); ~~and~~

(c) terminating examination of the instructions when an instruction under examination is beyond the instruction corresponding to the FLR Pointer; and

d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the FLR Pointer.

Claim 66 (Canceled)

Claim 67 (Currently Amended): In claim 67, after "medium of claim", please replace "66" with --62--.

Claim 77 (Currently Amended): A smart card configured to receive computer code having at least one method body within the computer code comprising:

a memory;

a processor connected to the memory; and

an installer module having logic operable to cause the processor to receive the computer code into the memory; and further having logic operable to cause the processor to determine instruction boundaries within the computer code by a) examining in a sequential manner each instruction of the at least one method body starting with a first instruction of the at least one method body for an instruction that establishes a logical return; b) maintaining a Farthest Logical Return (FLR) Pointer to continuously store the farthest logical return found in the examining step (a); ~~and~~ c) terminating examination of the instructions when an instruction under examination is beyond the instruction corresponding to the FLR Pointer; and d) resolving each unresolved reference in each instruction of the at least one method body starting with the first instruction of the at least one method body and ending with the instruction corresponding to the FLR Pointer.

—END EXAMINER'S AMENDMENT—

Allowable Subject Matter

3. Claims 1-3, 5-18, 20-31, 33-47, 49-65, and 67-79 allowed.

The following is an examiner's statement of reasons for allowance: As suggested by the Applicant (see 11/2/2005 Appeal Brief, especially pages 10-13), the cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, determining instruction boundaries of method bodies using a farthest logical return, and resolving unresolved references of the method body starting with a first instruction of the method body and ending with an instruction corresponding with the farthest logical return. These limitations are present in each of independent claims 1, 16, 29, 44, 59, 62, and 77. The distinctions provided by the independent claims apply equally to all dependent claims. Thus all pending claims 1-3, 5-18, 20-31, 33-47, 49-65, and 67-79 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jdr

TUAN DAM
SUPERVISORY PATENT EXAMINER